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NE Region Asset Specifications

Four Strand Barbed Wire Fence Specifications

Prior to commencement of construction, contact must be made with the following people:

- PGR Rangeland Agrologist (780) 645-6336
- Grazing Association President and Pasture Supervisor (Number provided by Agrologist)

1. No machinery is to be operated within ten meters of creeks or wetlands. Fence is to be handbuilt in these areas.

2. Fences are to be straight (drive in along a pre-tensioned barb wire line).

3. Seven foot posts will be “planted” a maximum of 16 feet apart. They must be pressure treated and not less than four (4) inches in diameter.

4. Line posts are to be dug in or driven a minimum of 32 inches deep. Post length above ground will be no greater than 4.5 feet. Tops **must not** be cut off fence posts.

5. Care should be taken to plant a post at each knoll top or draw bottom to ensure the bottom wire stays at a maximum of 16 inches above ground. Dip posts must be “deadmanned”. Posts in low swampy areas must have ½ inch x 24 inch rebar driven though a 3/8 inch drilled hole above the sharpened end of the post. (Refer to Figure 1)

6. **Double span braces are required at corners and gates.** (Refer to Figure 2)

    - Anchor gate and corner posts shall be installed using **8 foot** x 5-6 inch posts driven 44 inches deep. They must be braced horizontally and diagonally with a 10 foot span.
    - The horizontal brace rails must be a pressure treated 4x4 or a pressure treated 4 inch (minimum) diameter rail and centered 36 inches above the ground.
    - Counter (diagonal) bracing shall be constructed with # 9 gauge smooth wire, double and twisted. The counterbrace should be located 2 inches above the ground to prevent corrosion of the wire. All twitch sticks used for the counter bracing are to be pressure treated wood with a minimum 4 inch diameter. The twitch sticks must be resting against the horizontal brace rail, on the opposite side of the barbed wire, and wired in place with high tensile smooth wire.

7. Line brace (anchor) panels to be installed every ¼ mile.

8. Wire is to be tied off at all brace panels. Wire must be wrapped twice around the tie off post.

9. Four strands of 12 gauge Canadian barbed wire are to be fastened to posts at heights of 16, 26, 36 and 46 inches.

10. Two inch barbed stapes are to be used exclusively. Staples should never be driven home. Always rotate the staple away from the slash cut side of the staple. (Refer to Figure 3)

11. All wire gates must have a minimum clearance of 16 inches between the ground and the bottom wire and must be 24 feet long. (Refer to Figure 2)

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12. All metal gates must have a minimum clearance of 16 inches between the ground and the bottom rail of the gate and must be 32 feet long (two 16 foot metal gates). Metal gates shall be hung on braced pipe. (Refer to Figure 4)
13. Cattleguards must be 20 x 8 feet. Metal swinging gates must be installed on properly braced steel posts over every cattleguard. Wire gates (24 feet) must be constructed beside cattleguards installed on pasture fence for movement of cattle between the pastures. Cattle guard must be maintained to a depth of 30". (Refer to Figure 5)
14. Fence cut repairs could include the construction of a wire gate, braced metal swinging gates, or spliced fence. If fence cuts are repaired as a fence rather than a gate the wire must be continuous and not tied off at braces constructed for the wire cut. (Refer to Figure 6)

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Figure 1

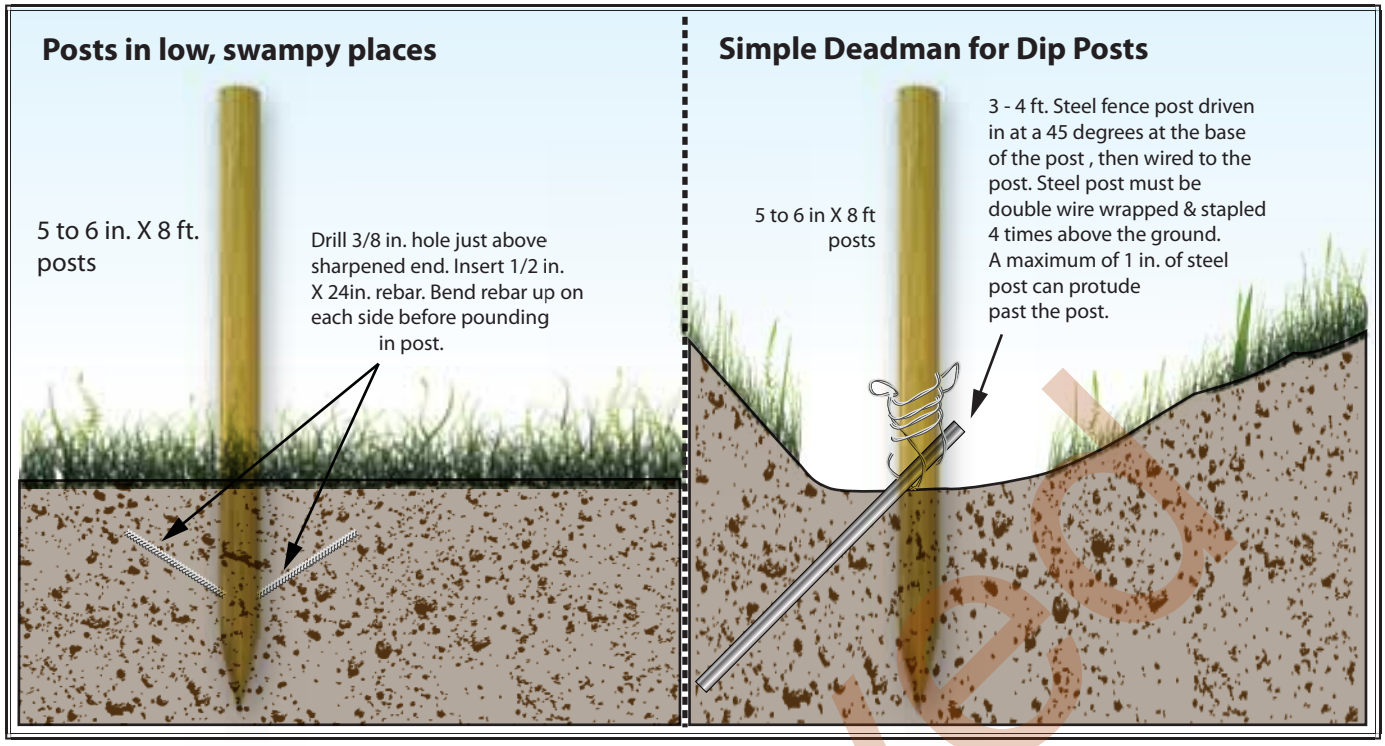
Posts in low, swampy places
5 to 6 in. X 8 ft. posts
Drill 3/8 in. hole just above sharpened end. Insert 1/2 in. X 24in. rebar. Bend rebar up on each side before pounding in post.
Simple Deadman for Dip Posts
5 to 6 in X 8 ft posts
3 - 4 ft. Steel fence post driven in at a 45 degrees at the base of the post , then wired to the post. Steel post must be double wire wrapped & stapled 4 times above the ground. A maximum of 1 in. of steel post can protude past the post.

Figure 2

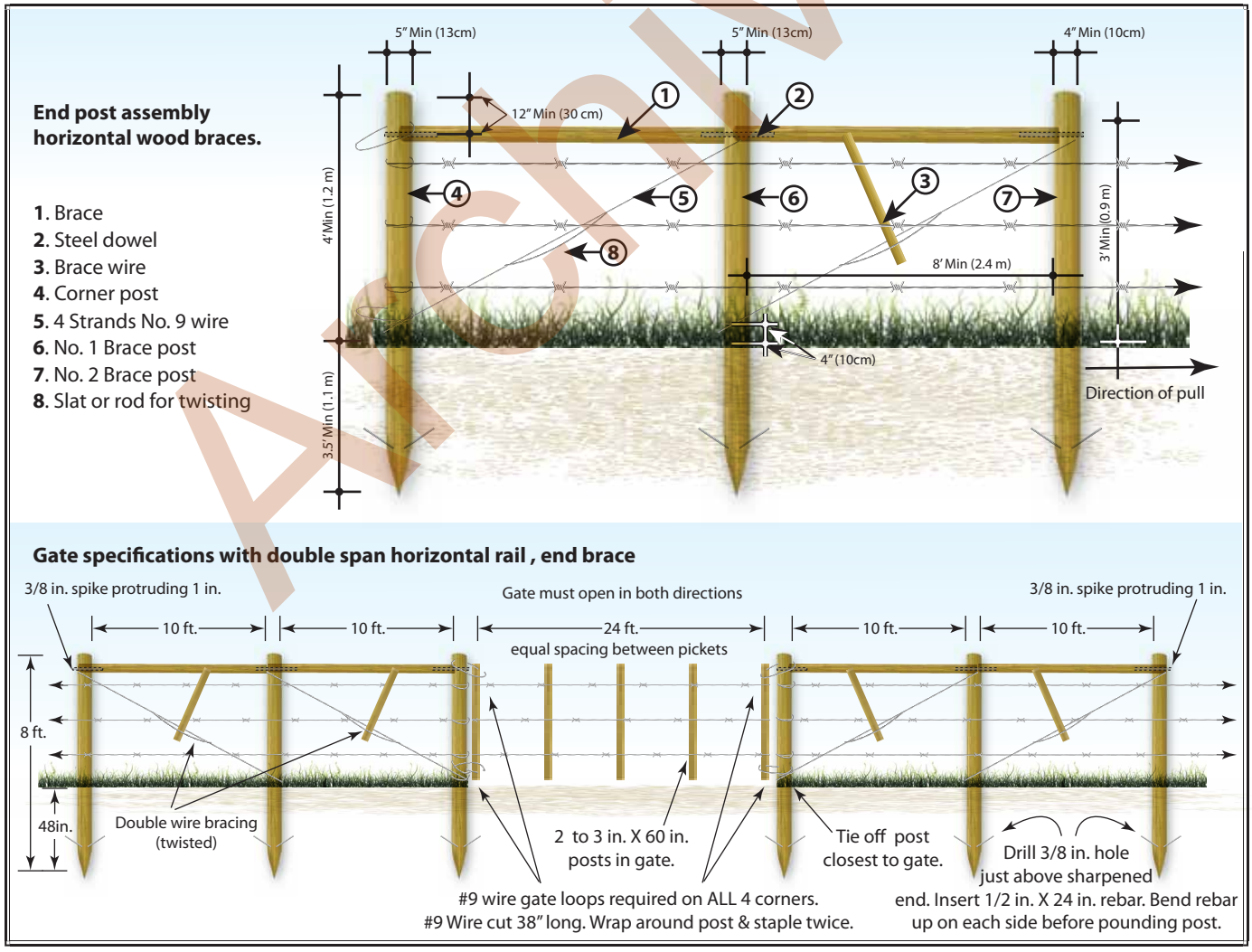
End post assembly horizontal wood braces.
1. Brace
2. Steel dowel
3. Brace wire
4. Corner post
5. 4 Strands No. 9 wire
6. No. 1 Brace post
7. No. 2 Brace post
8. Slat or rod for twisting
5" Min (13cm)
5" Min (13cm)
4" Min (10cm)
12" Min (30 cm)
4' Min (1.2 m)
3.5' Min (1.1 m)
3' Min (0.9 m)
8' Min (2.4 m)
4" (10cm)
Direction of pull
Gate specifications with double span horizontal rail , end brace
3/8 in. spike protruding 1 in.
Gate must open in both directions
10 ft.
10 ft.
24 ft.
10 ft.
10 ft.
3/8 in. spike protruding 1 in.
equal spacing between pickets
8 ft.
48in.
Double wire bracing (twisted)
2 to 3 in. X 60 in. posts in gate.
Tie off post closest to gate.
Drill 3/8 in. hole just above sharpened end. Insert 1/2 in. X 24 in. rebar. Bend rebar up on each side before pounding post.
#9 wire gate loops required on ALL 4 corners.
#9 Wire cut 38" long. Wrap around post & staple twice.

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Figure 3

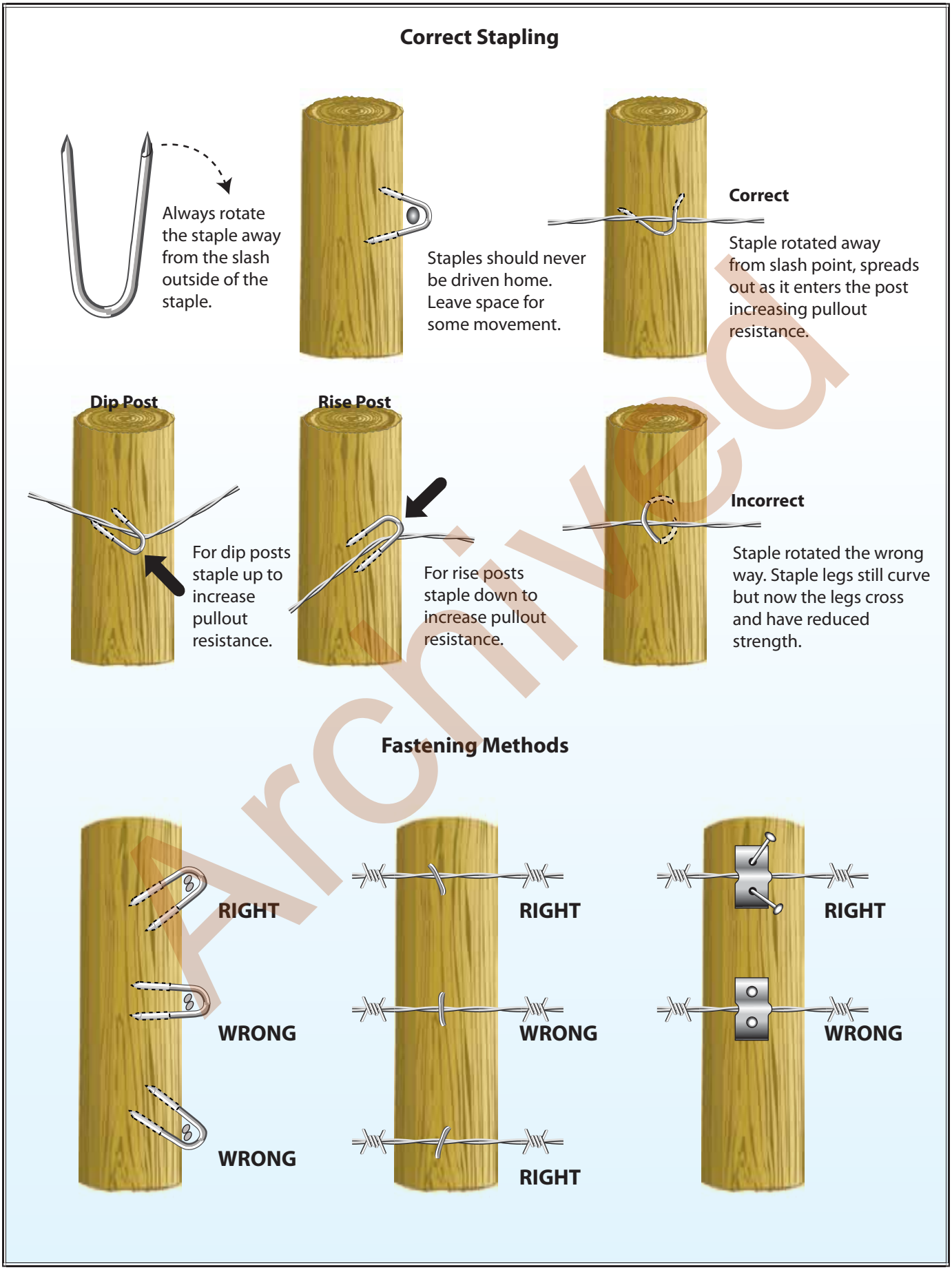
Correct Stapling
Always rotate the staple away from the slash outside of the staple.
Staples should never be driven home. Leave space for some movement.
Correct
Staple rotated away from slash point, spreads out as it enters the post increasing pullout resistance.
Dip Post
Rise Post
For dip posts staple up to increase pullout resistance.
For rise posts staple down to increase pullout resistance.
Incorrect
Staple rotated the wrong way. Staple legs still curve but now the legs cross and have reduced strength.
Fastening Methods
RIGHT
WRONG
WRONG
RIGHT
WRONG
RIGHT
RIGHT
WRONG

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Figure 4

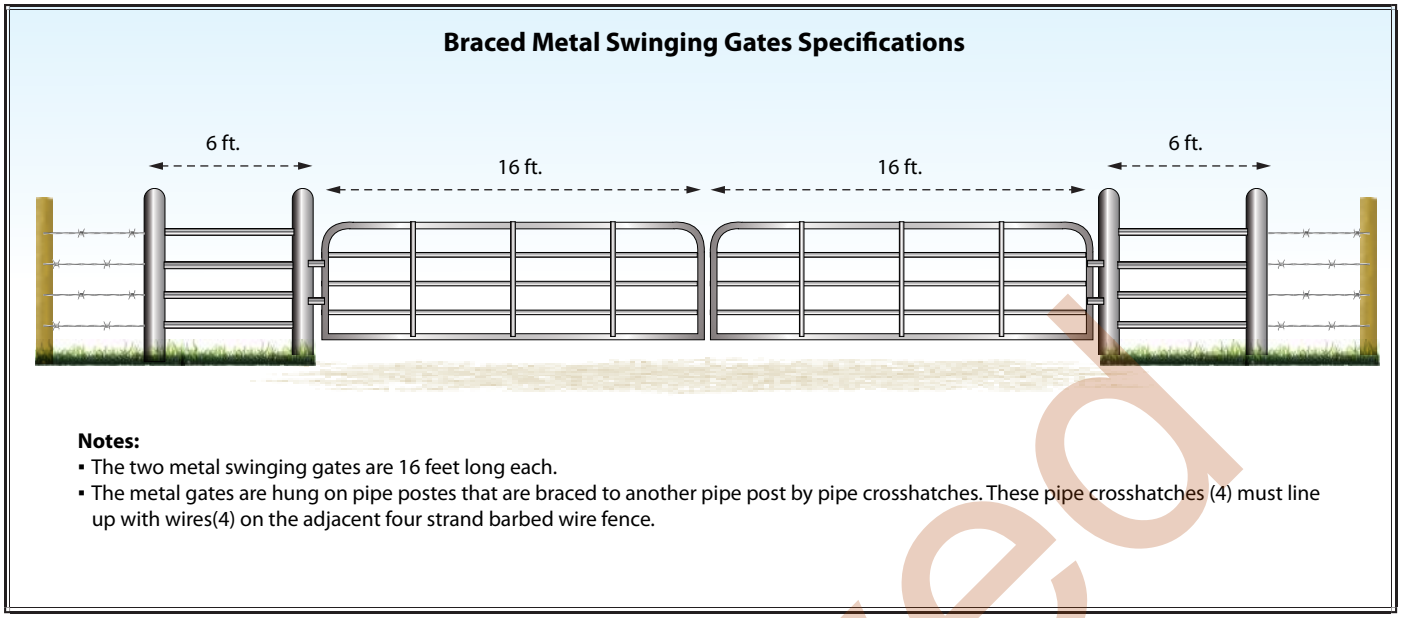
Braced Metal Swinging Gates Specifications
6 ft.
16 ft.
16 ft.
6 ft.
Notes:
▪ The two metal swinging gates are 16 feet long each.
▪ The metal gates are hung on pipe postes that are braced to another pipe post by pipe crosshatches. These pipe crosshatches (4) must line up with wires(4) on the adjacent four strand barbed wire fence.

Figure 5

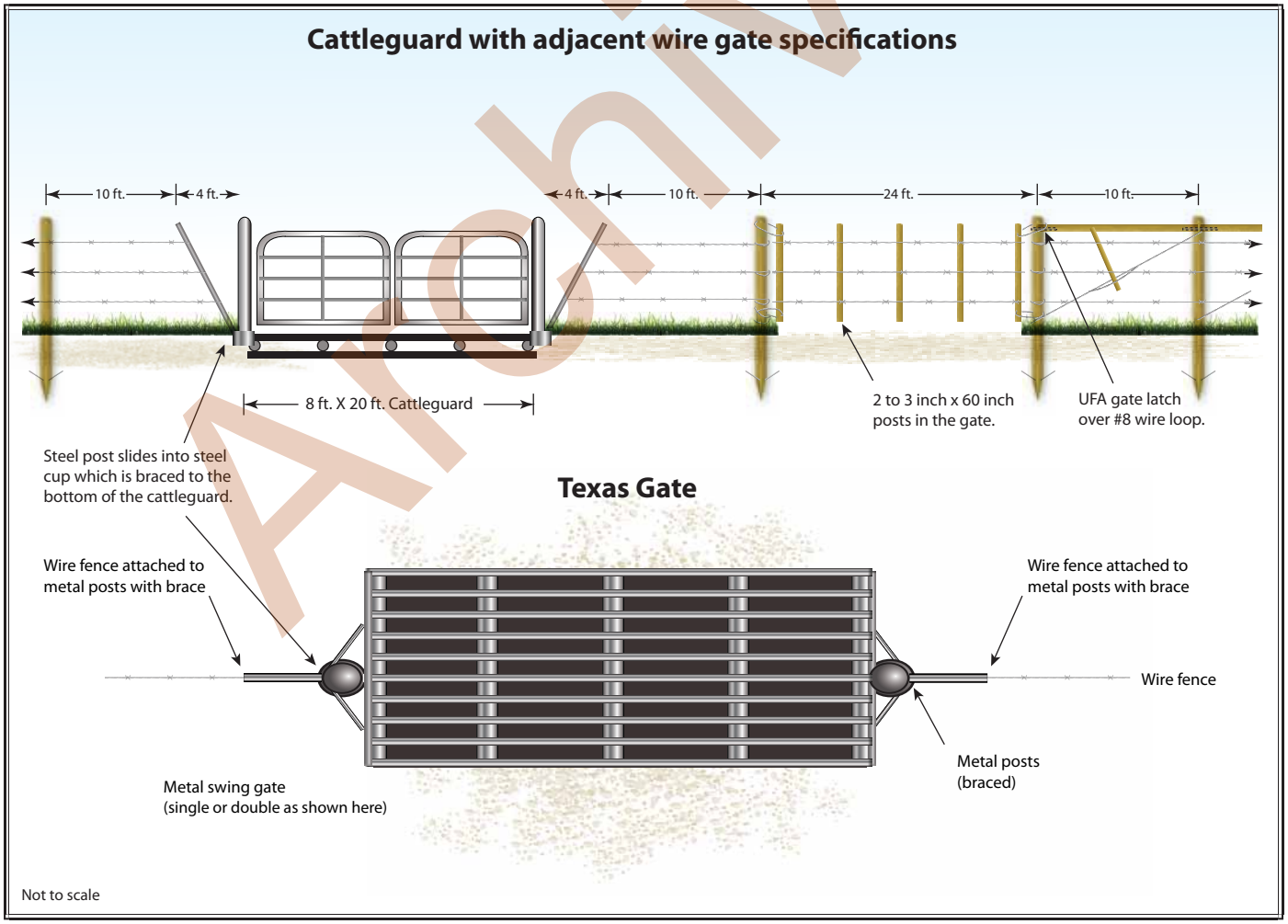
Cattleguard with adjacent wire gate specifications
10 ft.
4 ft.
4 ft.
10 ft.
24 ft.
10 ft.
8 ft. X 20 ft. Cattleguard
2 to 3 inch x 60 inch posts in the gate.
UFA gate latch over #8 wire loop.
Steel post slides into steel cup which is braced to the bottom of the cattleguard.
Texas Gate
Wire fence attached to metal posts with brace
Wire fence attached to metal posts with brace
Wire fence
Metal posts (braced)
Metal swing gate (single or double as shown here)
Not to scale

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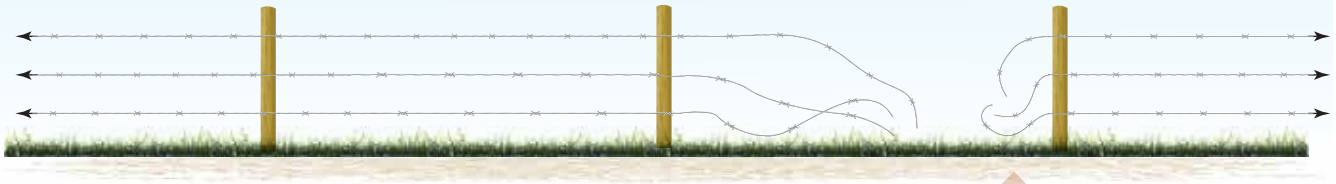
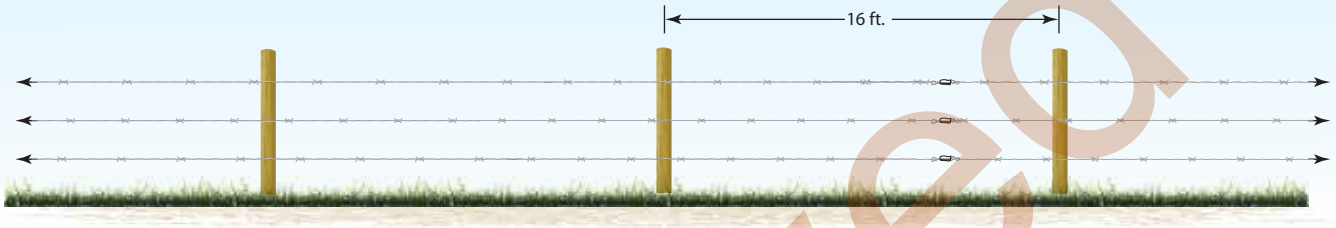
Figure 6

How to repair a fence cut as a fence:

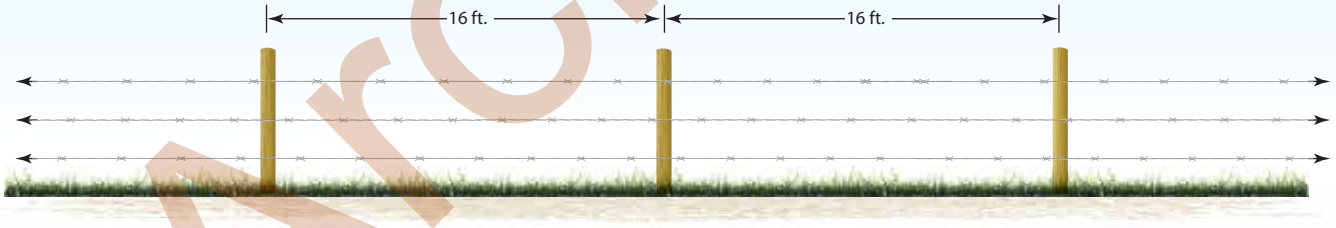




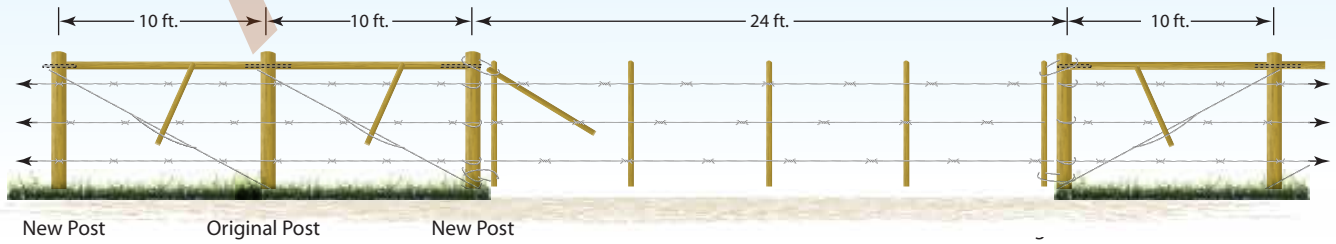
1. Attach the two cut ends to a wire tightener.
2. Tighten the wire until it is properly tensioned.
3. Splice the wire together.
4. Detach wire tightener.
5. Do not tie the wier ends off at post.

Adding a gate to a fence line:

Before gate construction:



After gate construction:



1. Wire must be properly stretched and wound twice around brace post panels on each side of gate.
2. A properly constructed wire gate must be placed in the open. Make opening 24 feet wide.

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